

INTERNATIONAL SEARCH REPORT

International application No.

PCT/IB2005/000576

A. CLASSIFICATION OF SUBJECT MATTER

IPC: see extra sheet

According to International Patent Classification (IPC) or to both national classification and IPC

B. FIELDS SEARCHED

Minimum documentation searched (classification system followed by classification symbols)

IPC: H04L, H04Q

Documentation searched other than minimum documentation to the extent that such documents are included in the fields searched

SE,DK,FI,NO classes as above

Electronic data base consulted during the international search (name of data base and, where practicable, search terms used)

EPO-INTERNAL, WPI DATA, PAJ, INTERNET, TXTE

C. DOCUMENTS CONSIDERED TO BE RELEVANT

| Category* | Citation of document, with indication, where appropriate, of the relevant passages | Relevant to claim No. |
|-----------|---|-----------------------|
| Y | WO 03019918 A1 (NOKIA CORP), 6 March 2003 (06.03.2003), page 16, line 7 - page 17, line 23 -- | 1-5,7-12, 14-19,21 |
| Y | 3GPP TR 23.974 V2.0.0 (2001-09); 3rd Generation Partnership Project: Technical Specification Group Services and System Aspects; SuDoort of Push service (Release 5), retrieved from the Internet: www.3gpp.org See sections 7.5 - 7.5.7 ----- | 1-5,7-12, 14-19,21 |

☐ Further documents are listed in the continuation of Box C.☒ See patent family annex.

* Special categories of cited documents:

"A" document defining the general state of the art which is not considered to be of particular relevance

"E" earlier application or patent but published on or after the international filing date

"L" document which may throw doubts on priority claim(s) or which is cited to establish the publication date of another citation or other special reason (as specified)

"O" document referring to an oral disclosure, use, exhibition or other means

"P" document published prior to the international filing date but later than the priority date claimed

"T" later document published after the international filing date or priority date and not in conflict with the application but cited to understand the principle or theory underlying the invention

"X" document of particular relevance: the claimed invention cannot be considered novel or cannot be considered to involve an inventive step when the document is taken alone

"Y" document of particular relevance: the claimed invention cannot be considered to involve an inventive step when the document is combined with one or more other such documents, such combination being obvious to a person skilled in the art

"&" document member of the same patent family

Date of the actual completion of the international search

30 August 2006

Date of mailing of the international search report

31-08-2006

Name and mailing address of the ISA/

Swedish Patent Office

Box 5055, S-102 42 STOCKHOLM

Facsimile No. +46 8 666 02 86

Authorized officer

Anders Edlund /LR

Telephone No. +46 8 782 25 00

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International application No.
PCT/IB2005/000576

International patent classification (IPC)

H04L 29/06 (2006.01)

H04L 12/58 (2006.01)

H04L 29/12 (2006.01)

Download your patent documents at www.prv.se

The cited patent documents can be downloaded at www.prv.se by following the links:

- In English/Searches and advisory services/Cited documents (service in English) or
- e-tjänster/anförda dokument (service in Swedish).

Use the application number as username.

The password is **RSIRWMQNHP**.

Paper copies can be ordered at a cost of 50 SEK per copy from PRV InterPat (telephone number 08-782 28 85).

Cited literature, if any, will be enclosed in paper form.

INTERNATIONAL SEARCH REPORT

Information on patent family members

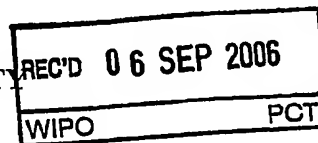
04/03/2006

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| | | | | | | | |
|----|----------|----|------------|----|-------------|---|------------|
| WO | 03019918 | A1 | 06/03/2003 | EP | 1419646 | A | 19/05/2004 |
| | | | | US | 6885861 | B | 26/04/2005 |
| | | | | US | 20030040280 | A | 27/02/2003 |
| | | | | US | 20050111441 | A | 26/05/2005 |

PATENT COOPERATION TREATY



From the
INTERNATIONAL SEARCHING AUTHORITY

To:

Alston & Bird LLP
Bank of America Plaza
101 South Tryon Street, Suite
4000
Charlotte, NC 28280-4000
USA

PCT

WRITTEN OPINION OF THE
INTERNATIONAL SEARCHING AUTHORITY

(PCT Rule 43bis.1)

Date of mailing
(day/month/year)

31-08-2006

Applicant's or agent's file reference

42933/288165

FOR FURTHER ACTION

See paragraph 2 below

International application No.

PCT/IB2005/000576

International filing date (day/month/year)

03-03-2005

Priority date (day/month/year)

10-03-2004

International Patent Classification (IPC) or both national classification and IPC

See Supplemental Box

Applicant

Nokia Corporation et al

1. This opinion contains indications relating to the following items:

- ☒ Box No. I Basis of the opinion
- ☐ Box No. II Priority
- ☐ Box No. III Non-establishment of opinion with regard to novelty, inventive step and industrial applicability
- ☐ Box No. IV Lack of unity of invention
- ☒ Box No. V Reasoned statement under Rule 43bis.1(a)(i) with regard to novelty, inventive step or industrial applicability; citations and explanations supporting such statement
- ☐ Box No. VI Certain documents cited
- ☐ Box No. VII Certain defects in the international application
- ☐ Box No. VIII Certain observations on the international application

2. FURTHER ACTION

If a demand for international preliminary examination is made, this opinion will be considered to be a written opinion of the International Preliminary Examining Authority ("IPEA") except that this does not apply where the applicant chooses an Authority other than this one to be IPEA and the chosen IPEA has notified the International Bureau under Rule 66.1bis(b) that written opinions of this International Searching Authority will not be so considered.

If this opinion is, as provided above, considered to be a written opinion of the IPEA, the applicant is invited to submit to the IPEA a written reply together, where appropriate, with amendments, before the expiration of 3 months from the date of mailing of Form PCT/ISA/220 or before the expiration of 22 months from the priority date, whichever expires later.

For further opinions, see Form PCT/ISA/220.

3. For further details, see notes to Form PCT/ISA/220.

Name and mailing address of the ISA/SE
Patent- och registreringsverket
Box 5055
S-102 42 STOCKHOLM

Authorized officer

Anders Edlund /LR

Facsimile No. +46 8 667 72 88

Telephone No. +46 8 782 25 00

WRITTEN OPINION OF THE
INTERNATIONAL SEARCHING AUTHORITY

International application No.

PCT/IB2005/000576

Supplemental Box

In case the space in any of the preceding boxes is not sufficient.

Continuation of: Cover sheet

International patent classification (IPC)**H04L 29/06** (2006.01)**H04L 12/58** (2006.01)**H04L 29/12** (2006.01)

WRITTEN OPINION OF THE
INTERNATIONAL SEARCHING AUTHORITY

International application No.

PCT/IB2005/000576

Box No. I Basis of this opinion

1. With regard to the language, this opinion has been established on the basis of:

- ☒ the international application in the language in which it was filed
☐ a translation of the international application into _____, which is the language of a translation furnished for the purposes of international search (Rules 12.3(a) and 23.1(b)).

2. With regard to any nucleotide and/or amino acid sequence disclosed in the international application and necessary to the claimed invention, this opinion has been established on the basis of:

a. type of material

- ☐ a sequence listing
☐ table(s) related to the sequence listing

b. format of material

- ☐ on paper
☐ in electronic form

c. time of filing/furnishing

- ☐ contained in the international application as filed.
☐ filed together with the international application in electronic form.
☐ furnished subsequently to this Authority for the purposes of search.

3. ☐ In addition, in the case that more than one version or copy of a sequence listing and/or table relating thereto has been filed or furnished, the required statements that the information in the subsequent or additional copies is identical to that in the application as filed or does not go beyond the application as filed, as appropriate, were furnished.

4. Additional comments:

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Box No. V Reasoned statement under Rule 43bis.1(a)(i) with regard to novelty, inventive step or industrial applicability; citations and explanations supporting such statement

1. Statement

| | | | |
|-------------------------------|--------|-----------------------------|-----|
| Novelty (N) | Claims | <u>1-21</u> | YES |
| | Claims | | NO |
| Inventive step (IS) | Claims | <u>6, 13, 20</u> | YES |
| | Claims | <u>1-5, 7-12, 14-19, 21</u> | NO |
| Industrial applicability (IA) | Claims | <u>1-21</u> | YES |
| | Claims | | NO |

2. Citations and explanations:

The object of the invention is to solve the problem of pushing services to a terminal located in a mobile network.

Reference is made to the following document/documents:

D1: WO 03019918 A1

D2: 3GPP TR 23.974 V2.0.0 (2001-09); Support of Push service; (Release 5); www.3gpp.org

Document D1 relates to a method that improves mobility and service recovery for a user in a wireless communication network. Service information concerning the user is stored in a registrar. A subscription message is sent from a user terminal to the registrar. A header in the subscription message contains a unique indication. In response to the subscription message containing a unique indication in a header, the registrar returns a notification message to the user terminal. The payload of the notification message includes service information for the user to be used by the user terminal for communication services.

D2 is a standard from 3GPP, which relates to push services.

Claims 1, 8 and 15:

From D1, which is considered to represent the most relevant document, a method is known for pushing services to a terminal located in a mobile network, the method comprising:

subscribing to a push service from a push proxy located across a public network from the mobile network, wherein subscribing to a push service comprises subscribing to a push service on behalf of the terminal;

.../...

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Supplemental Box

In case the space in any of the preceding boxes is not sufficient.
Continuation of: BOX V

receiving push content at the push proxy in accordance with the push service (see D1 page 16 line 7 - page 17 line 23);

The claimed invention according to claims 1, 8 and 15 differs from the method in D1 in that the SIP-proxy (push proxy in D1) is capable of establishing a network-initiated data session with the terminal, where after the terminal registers with the SIP-proxy and the SIP-proxy pushes data to the terminal.

Due to these features, the SIP-proxy is able to contact (i.e. via SMS) a terminal without having knowledge of the terminals IP-address.

Consequently, with the background of D1, the problem is to design a method in which the push proxy in D1 is able to contact a terminal without having knowledge about the terminals IP-address.

A solution to this problem is known from document D2, which describes a method for pushing data to a mobile terminal via a push proxy. If the terminal is unreachable by the push-proxy, the push proxy sends an SMS to the terminal to start an PDP-context activation, where after the terminal indicates the activation to a presence server located in the push proxy so the push proxy can start to push data to the terminal (see sections 7.5-7.5.7)

It is therefore considered to be obvious for a person skilled in the art to use the teachings of D2 together with prior-art as specified in D1 in order to achieve a solution according to the claimed invention.

Accordingly, the claimed invention according to claims 1, 8, and 15 lacks an inventive step.

.../...

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Supplemental Box

In case the space in any of the preceding boxes is not sufficient.

Continuation of: BOX V

Claims 2-5, 7, 9-12, 14, 16-19, 21:

In these claims, are other technical features stated for pushing data to a mobile terminal. These claims differ from the claimed invention claimed in previous claims (see above) in obvious details concerning these pushing features. The inclusions of such features are regarded as part of customary praxis a skilled person would consider in accordance with circumstances. From that described in these claims, it is considered obvious for a person skilled in the art, with the knowledge of D1 and D2, to accomplish a method for pushing data to a mobile terminal as stated in these claims. Therefore, the claimed invention claimed in claims 2-5, 7, 9-12, 14, 16-19, 21 is not considered to involve an inventive step.

Conclusion:

The claimed invention according to claims 1-21 is novel, but claims 1-5, 7-12, 14-19 and 21 lacks an inventive step. The claimed invention is industrially applicable.